

ABSTRACT

A pinned photodiode for a CMOS image sensor and fabricating method thereof is disclosed. The disclosed pinned photodiode can reduce a probability of recombination of excess electrons by forming a second potential well having a center-cross form across a photodiode area. The disclosed pinned photodiode-fabricating method comprises forming a photodiode on a substrate, forming a first potential well between the substrate and the photodiode, and forming a second potential well having a center-cross form across said photodiode, which is positioned more deeply than said first potential well.